

PATENT APPLICATION
DOCKET NO.: 200315309-1

LISTING OF THE CLAIMS

Pursuant to 37 C.F.R. §1.121, provided below is a listing of the pending claims.

1. (Original) A printed circuit board (PCB) substrate, comprising:

a first dielectric material associated with a first current return layer;

a second dielectric material associated with a second current return layer;

a signal path layer interposed between said first dielectric material and said second dielectric material; and

an adhesive layer interposed between said first dielectric material and said second dielectric material, said adhesive layer being substantially coplanar relative to said signal path layer.

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2. (Original) The PCB substrate as recited in claim 1, wherein said adhesive layer is comprised of a material operable to substantially reduce attenuation due to an electrical coupling effect between a pair of signal traces disposed in said signal path layer.

3. (Original) The PCB substrate as recited in claim 2, wherein said adhesive layer has a lower loss tangent than said first dielectric material.

4. (Original) The PCB substrate as recited in claim 2, wherein said adhesive layer has a higher glass transition point (T_g) than said first dielectric material.

5. (Original) The PCB substrate as recited in claim 2, wherein said adhesive layer comprises a dielectric material selected from the group consisting of a two-sided adhesive tape, an adhesive film having a copper foil, an epoxy adhesive sheet, and an expanded polytetrafluoroethylene (ePTFE).

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6. (Original) The PCB substrate as recited in claim 2, wherein said pair of signal traces are electrically coupled in a differential mode.

7. (Original) The PCB substrate as recited in claim 6, wherein said signal path layer further comprises at least one pair of signal traces electrically coupled in a common mode.

8. (Original) The PCB substrate as recited in claim 2, wherein said first dielectric material comprises a material selected from the group consisting of FR-4 material, pre-preg material, core material, and B-stage substrate material.

Claims 9-15. (Canceled)

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16. (Original) A method for constructing a printed circuit board (PCB) substrate, comprising:

providing a first dielectric material associated with a first current return layer;

providing a second dielectric material associated with a second current return layer;

providing a signal path layer interposed between said first dielectric material and said second dielectric material; and

providing an adhesive layer interposed between said first dielectric material and said second dielectric material, said adhesive layer being substantially coplanar relative to said signal path layer.

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17. (Original) The method as recited in claim 16, further comprising selecting said adhesive layer to include a material operating to substantially reduce attenuation due to an electrical coupling effect between a pair of signal traces disposed in said signal path layer.

18. (Original) The method as recited in claim 17, further comprising selecting said adhesive layer to include a material having a lower loss tangent than said first dielectric material.

19. (Original) The method as recited in claim 17, further comprising selecting said adhesive layer to include a material having a higher glass transition point (T_g) than said first dielectric material.

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20. (Original) The method as recited in claim 17, further comprising curing a layer of said PCB substrate, said layer selected from the group consisting of said first dielectric material, said second dielectric material, and said adhesive layer.

Claims 21-25. (Canceled)